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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,253	12/12/2001	Chan Hwa Jeong	P/923-345	1721

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EXAMINER

NICOLAS, WESLEY A

ART UNIT	PAPER NUMBER
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1742

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DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/015,253

Applicant(s)

JEONG, CHAN HWA

Examiner

Wesley A. Nicolas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Claim Objections*

1. Claims 1 and 2 are objected to because of the following informalities:
  - Claim 1 is objected to because "tiomolybdenic acid ammonium solution" should be changed to "ammonium thiomolybdate" because that is the accepted terminology in the art. Furthermore, "tiomolybdenic" does not even appear once out of a total of 22 million different compounds in the Chemical Abstracts Service database. Applicant is reminded to change all instances of "tiomolybdenic acid ammonium solution" to "ammonium thiomolybdate" to maintain uniformity of terminology.
  - Claim 2 contains the terminology "such as" which leaves the reader confused as to whether sulfuric acid or oxalic acid are really included as a limitation in the claim or merely just an example. Applicant could use "selected from the group of" language instead of "such as."

Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saruwatari et al. (4,230,539), and further in view of Roemer (3,540,862).

Saruwatari et al. teach a manufacturing method comprising:

- molding an exterior of a member by using an aluminum material (col. 1, lines 11-14: "aluminum or aluminum alloy");
- forming an oxide-coated layer on the surface of the member after the exterior of the member is completed ( ) using an electrolyte solution such as sulfuric acid (col. 5, lines 7-20);
- electrolyzing the member in ammonium thiomolybdate (col. 2, lines 55-60 and col. 5, lines 7-20: equivalent to Applicant's "thiomolybdenic acid ammonium solution") and infiltrating a molybedene emulsion into the oxide-coated layer of the member (col. 5, lines 7-20), wherein the concentration of the ammonium thiomolybdate is between 0.01~0.1 wt% (Table 5) and the molybedene emulsion is deposited in the pores (col. 5, lines 7-20), and wherein the oxide coated film has a thickness of 0.01~0.03mm (col. 1, lines 50-55 where Applicant's claimed range overlaps the reference at 10 $\mu$ ~30  $\mu$ ).

Saruwateri et al. but fail to specifically teach the application of the process on a bearing.

Roemer teaches that it is well known to form oxide coatings on bearings because of their very good sliding properties (col. 2, lines 17-24).

Claims 1-4 are rejected because it would have been obvious and within the ordinary skill in the art at the time the invention was made to have modified the Saruwatari et al. invention to perform the oxide formation on a bearing material as taught by Roemer because Roemer teaches that it is well known to form oxide coatings on bearings because of their very good sliding properties (col. 2, lines 17-24).

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Saruwatari et al. - Roemer combination as applied to claim 1 above, and further in view of Fujikura (JP 56044796).

The Saruwatari et al. - Roemer combination are as applied, argued, and disclosed above and incorporated herein but fail to specifically teach a step of abrading the member (*i.e.* bearing) to improve the illumination of the surface of the member after infiltrating the molybdene emulsion.

Roemer teaches a step of performing a rubbing treatment which improved the lubricating property of the member (Abstract).

Claim 5 is rejected because it would have been obvious and within the ordinary skill in the art at the time the invention was made to have modified the Saruwatari et al. -

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Roemer combination to perform an abrading (*i.e.* rubbing) treatment on the surface of the member as taught by Fujikura because Fujikura teaches teaches a step of performing a rubbing treatment which improved the lubricating property of the member (Abstract). It should be noted that although Fujikura does not disclose anything about the illumination properties, similar processes can reasonably be expected to yield products which inherently have the same properties. In re Spada, 15 USPQ2d 1655 (CAFC 1990).

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley Nicolas whose telephone number is (703)305-0082. The examiner can normally be reached on Mon.-Thurs. from 7am to 5pm.

The Supervisory Primary Examiner for this Art Unit is Roy King whose telephone number is (703) 308-1146.

The fax number for this Group is (703) 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.



Wesley A. Nicolas

July 10, 2003